

AMENDMENTS TO THE SPECIFICATION

On page 8, please replace paragraph [0032] with the following rewritten paragraph:

[0032] [0033] An alternative edge seed layer removal approach is an electrochemical process. Examples of systems using electrochemical processes to remove edge coppers are described in U.S. application Ser. No. 10/032,318, filed Dec. 21, 2001, now U.S. Patent No. 6,833,063, owned by the assignee of the present application. FIG. 8 illustrates an electrochemical seed layer removal apparatus 300 to remove the seed layer 302 from a back edge 303 and a bevel 304 of an edge region 305 of a wafer 306 as the wafer is rotated. The apparatus 300 comprises a solution delivery section 308 and an electrode 310. The solution delivery section 308 may be a porous media, for example a spongy material or a brush to apply a process solution 312 to the edge region of the wafer. The delivery section 308 may be made of an insulating or a high resistivity material. Alternatively, the solution delivery section may be a cavity to hold the solution delivery section so that the edge of the wafer is placed into the cavity. The process solution 312, preferably a mild electropolishing or an electroetching solution such as dilute sulfuric acid or salt solution is delivered to the solution delivery section through a solution line 314. The electrode 310 is a conductive material and connected to a terminal of a power source 316, which applies a potential difference between the electrode 310 and the seed layer 302 during the removal process. During the removal process, the edge of the wafer is pressed against the solution delivery section 308 so that the solution delivery section 308 contacts the seed layer 302 covering the back edge 303 and the bevel 305. Alternatively, the solution delivery section 308 may include a cavity to insert the edge of the wafer 306 during the removal process. Once the solution delivery section 308 is saturated with the process solution 312, current is applied through the electrode 310 and the seed layer 302 at the back edge and the bevel is removed while the wafer is rotated by a carrier (not shown). Preferably, a positive voltage is applied to the seed layer with respect to the electrode 310 during this process. After the removal of the seed layer from the back edge and the bevel, the wafer is electroplated as described above. This is then followed by the removal of the edge copper from the front edge of the edge region, as described above.